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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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James J. La Clair

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EXAMINER

LIN, JERRY

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

07/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,900	Applicant(s) CLAIR, JAMES J. LA	
	Examiner JERRY LIN	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1, 11 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' arguments and amendments, filed May 9, 2008, have been fully considered and they are deemed to be persuasive in part. The following rejections are reiterated. They constitute the complete set presently being applied to the instant application.

Status of the Claims

Claims 2-10 and 12-20 are under examination.

Claims 1, 11, and 21-23 are withdrawn as being drawn to an unelected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2-10 and 12-20 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Keefe (US 2002/0004204 A1) in light of Berlien et al. (US 5850195).

The instant claims are drawn to a method of transferring a stream of digital data through a substrate, allowing the interaction of a molecule with the substrate, receiving streams of digital data transferred through a substrate, and decoding the identity of the

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molecule interacting with the substrate according to the alteration of the stream of digital data.

Regarding claims 2 and 12, O'Keefe teaches a method and device that includes creating at least one stream of light data and transferring it through a substrate (page 6, paragraph 0065; page 8, paragraphs 0082, 0083); allowing the interaction of molecules with the substrate (page 2, paragraph 0012); receiving streams of light data transferred through the substrate (page 10, paragraphs 0106-0107); and determining the identity of the molecule (page 2, paragraph 0012; page 10, paragraphs 0106-0107).

Regarding claim 3, O'Keefe teaches altering the stream according to a programmable function (page 8, paragraphs 0086-0088).

Regarding claims 4, 5, 13, and 14, O'Keefe teaches using a laser beam that is polarized (page 8, paragraphs 0082-0083).

Regarding claim 6 and 15, O'Keefe teaches creating a digitally encoded molecular current (page 10, paragraphs 0106-0107).

Regarding claims 7, 16, and 17, O'Keefe teaches generating digital electronic signals by gating electron flow over a two or three dimensional space (page 10, paragraph 0107) as taught by Berlien et al. (US 5850195) (please see Berlien et al., throughout).

Regarding claim 8-10 and 18-20, O'Keefe teaches controlling heat to add molecules in a two-dimensional surface or a three dimensional element (page 10, paragraphs 0108-0110; page 6, paragraphs 0062-0064).

Response to Arguments

4. Applicants have responded to this rejection by amending the instant claims to recite where binary data is carried by electrical, molecular or light signals. Furthermore, applicants state the reference does not teach creating a stream of binary data carried by electrical, molecular, or light signals, transferring the stream of binary data carried by electrical, molecular, or light signals through a substrate, and receiving a stream of binary data carried by electrical, molecular, or light signals that was transferred through a substrate. The Examiner disagrees. O'Keefe teaches extracting digital data from an electrical signal (page 10, paragraphs 0106-0107). Since digital data is binary data, in order to extract digital data from an electrical signal, the signal must be carrying digital or binary data. Thus, O'Keefe does teach creating a stream of binary data carried by electrical, molecular, or light signals. This signal is transferred through a substrate (page 10, paragraphs 0106-0107) and is received (page 2, paragraph 0012; page 10, paragraphs 0106-0107).

Applicants also state that the claims recite that the light signal itself is binary and not analog. However, the claims, as written, state that the binary data is carried by the light signal. As explained above, O'Keefe teaches extracting digital data (binary data) from a signal, thus the signal carries digital data (binary data).

This rejection is maintained from the previous office action.

Withdrawn Rejections

5. Applicant's amendments, filed May, 9, 2008, with respect to the rejection made under 35 U.S.C. §112 2nd have been fully considered and are persuasive. The amendment is sufficient to overcome the rejection. This rejection has been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY LIN whose telephone number is (571)272-2561. The examiner can normally be reached on 7:00-5:30pm, M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie A. Moran can be reached on (571) 272-0720. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. L./

Examiner, Art Unit 1631

/John S. Brusca/

Primary Examiner, Art Unit 1631